

Remarks

Reexamination and reconsideration of the application as amended are respectfully requested.

Claims 1, 19 and 20 have been amended to address certain clarification issues and typographical issues relative to the application claims as originally filed. Claim 4 has been cancelled.

The Applicants wish to thank Examiner Torres-Velazquez for the courtesies extended during the personal interview of May 8, 2003, the substance of which is summarized in the Interview Summary prepared by Examiner Torres-Velazquez. The rejection based on Ogino is respectfully traversed. The Ogino reference describes an air cleaning filter element prepared by applying a pressure-sensitive adhesive to a three-dimensional polyurethane foam. The adhesive is applied to one surface of the polyurethane foam and it is then sprinkled with carbon, a second adhesive coated polyurethane foam is then applied to the carbon coated face of the first foam to prepare a contained sandwich of carbon. In the specific examples and in the description, the average size of the carbon is larger than the average cell size of the polyurethane foam. In the Examples, and the description at col. 1, ln. 60, the polyurethane has nine cells per 25 linear mm which generally corresponds to a average cell size of 2.7 or 2.8 mm. ✓ The carbon applied to this foam is stated to have a size of from 4 to 6 mesh, said to be of 4 mm in average particle size, meaning that some of the carbon particles would be substantially larger than 4 mm. The carbon in Ogino is larger than the cell size of his foam. ✓

In contrast, Applicants flexible absorbent loaded filter uses absorbent particles where the "largest average cross-sectional dimension is smaller than the average diameter of the pores of the support web". This is as the absorbent particles in Applicants' claim structure must interpenetrate the entire depth of the filter material so that the absorbent particles attach to all the surfaces of the support web. This is neither taught nor suggested in Ogino. As pointed out above, Ogino teaches the exact opposite.

Further, Applicants' support web is recited as formed of substantially non-linear filaments that randomly intersect. In Ogino, the support web is not a filament formed support web but rather a polyurethane foam. ✓ A unique aspect of the invention is related to its support web formed of

substantially non-linear filaments. As recited in the claims, using this support web, the absorbent loaded filter web is able to flex around a small radius of curvature without adversely affecting the pressure drop. As such, the invention filter can be used in non-linear or curved applications while it can be manufactured as a flat web, which is considerably more economical and manufacturable. Specifically, the invention absorbent loaded flexible web is able to be manufactured in a flat form and then flexed into a variety of suitable shapes, depending on the specific application without adversely affecting the filter performance. In contrast, a polyurethane-type product would require to be manufactured in its final shape on form in order to not adversely effect its performance characteristics.

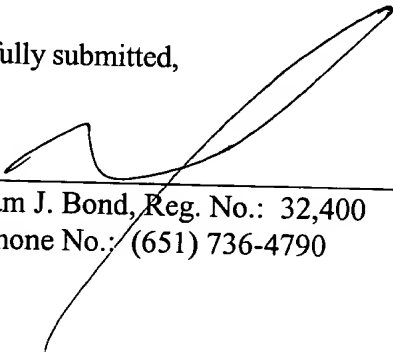
The disadvantages of a polyurethane foam is brought out in the application specification as filed in Comparative Examples C1 and C2.1 Comparative Examples C1 and C 2 use reticulated polyurethane foam, such as those described in Ogino, and demonstrate the disadvantages of a polyurethane foam . Namely, that these foam based filters have substantial increases in pressure drop when flexed around a small radius of curvature. Specifically, pressure drop increases of an order of 4 times or more were observed due to the collapse of foam pore structure. Contrast this with the invention webs where the pressure drop increases were comparatively minor when likewise flexed.

In view of the above, it is submitted that the application claims as originally presented are in substantial condition for allowance. The art neither teaches nor suggests the specific structure being claimed or the advantages thereof.

Respectfully submitted,

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